

# Influence of Value Management Approaches On On-Time Delivery of Products in Kenya a Survey of Manufacturing Firms in Nauru

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A Research Project Submitted To The Department Of Procurement And Logistics In The School Of Entrepreneurship, Procurement And Management In Partial Fulfillment Of The Requirement For The Award Of Masters Of Science In Procurement And Contract Management Offjomo Kenyatta University of Agriculture And Technology

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**Abstract:** Manufacturing firms exist in a dynamic environment that is unpredictable thus the need to effectively and efficiently carry out their operations which will lead to maintaining consistency in ensuring value creation through the supply chain. Value management aims at delivering products on time to their customers with appropriate performance and cost. The study sought to analyze the influence of value management approaches on on-time delivery of products in Kenya. It reviewed cost reduction, new product development, pricing and staff competence. The study adopted descriptive research design using qualitative and quantitative approaches using the survey method. The target population of this study was 84 managers working in procurement department, production and operations management, marketing and human resource department. These managers were from manufacturing firms in Nakuru. Census sampling design was employed. Primary data was collected by use of questionnaire on drop and pick later basis. Data collected was analyzed by means of Statistical Package for the Social Sciences (SPSS), and presented through percentages and frequencies. The information was displayed by use of bar charts and frequency tables. To help establish the relationship between the variables, a correlation analysis was undertaken. Out of the questionnaires issued, 71 were returned fully filled achieving a response rate of 84.52%. Regression results revealed that there was an existing direct relationship between cost reduction and on-time delivery of products ( $P=0.012$ ,  $\alpha = 0.05$ ). A  $P$ -value of 0.026 against a significance level of 0.05 showed that new product development influenced on-time delivery of products. Model coefficients gave  $P=0.042$  against  $\alpha = 0.05$  for pricing. The study made recommendations that: manufacturing organizations should use systems and operations methods that help in cost reduction; manufacturing firms should do product development for the products they manufacture; manufacturing firms should adopt pricing strategies that help in delivery of products, and; manufacturing firms should have competent employees and have measures put in place to see their development.

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Date of Submission: 12-03-2018

Date of acceptance: 29-03-2018

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## I. Introduction

### 1.1 Background of the study

According to Lyson (2009), on time delivery is measured on the basis of the amount of time taken from concept to delivery of final product to the market. On time delivery of the right products and services at the right time, the right qualities and the right quantities is the main aim of any given supply chain as it is used as a supply chain metric (Hausman, 2004). In a supply chain management delivering the product to the consumer is the final stage. Production level of any manufacturing unit, is guided by reliability, speed of delivery, production costs, quality, speed and flexibility with an aim of satisfying its customers. When evaluating delivery of a product, service offered during the process has an impact on customer satisfaction (Gunasekeran, Patel & Tirtiroglu, 2001).

As observed by Wisner, Tan and Leong (2012), in the supply chain management philosophy, value adding activities are incorporated into a flowing process to ensure that the customer demand is met with the correct order quantity that is delivered on time. The value adding activities include raw materials acquisition, production processing and physical distribution. Delivery process of a product is in relation to time as developed by porter in the 1980s hence directly linked to a supply chain success. If a manufacturing unit is able to deliver goods on time it gains competitive advantage in the marketplace. (Forslund, Jonsson & Mattson, 2009) observed that supply chain and logistics managers are more concerned by how on time delivery directly affects customer satisfaction.

Internationally as observed Iyer, Germain and Frankwick(2004) studied the relationship of supply chain B2B e-commerce with time based delivery performance. Empirical results collected from a sample of 152 US manufacturers in SIC codes 20-39 suggested that implementing B2B e-commerce contributes to improved business process resulting in enhanced on time delivery. In the B2B world, a late delivery can have a huge impact on the business waiting for the finalized product. For the B2C, impact of delayed orders is more fragmented since customers will return late orders while some will give bad reviews. Some will demand for refunds of their monies therefore disrupting cash flows. Customers expect on time deliveries and shipments. Everyone in the manufacturing unit ensures that on time delivery is as high as possible so that the supply chain runs smoothly and satisfaction remains high. Most organizations are focusing on technology innovations in order to fix the complex business environment but more emphasis should be on delivering value in products and business outcomes in line with the organizations strategy.

According to a study carried out by Marcel (2004) in Ghana, imports done by the country are responsible for a large percentage of late deliveries. Receiving firms tend to have a strain in production leading to building up inventories. Delay in production can damage the reputation of a firm to its customers. Favorable prices often lead to manufacturing units putting up with the contractual agreement they have put in place with the supplier. As things keep evolving in the African continent, Karlsson (2011) observed that there is demand for better quality, faster delivery and better overall value increase. This has led to leaders in manufacturing units to be able to differentiate between the things that create value and those that do not hence adoption of value management practices.

In 2016, manufacturing sector contributed 14% to the GDP in Kenya. According to UNIDO (2016), Kenya is the most industrially developed country in East Africa. The Kenyan manufacturing process is undergoing a major change due to the structural restructuring process which the Kenyan government has been implementing with a view of improving the economic and social environment of the country. Mogere (2016) observed the main challenge facing manufacturing firms in Kenya today is how to deliver the right products, in the right quality and quantity at the right place and in the right time. Inability to tackle these issues leads to a lack of trust hence reduced customer loyalty and market share. Achieving superior delivery performance is the primary objective of any manufacturing industry's supply chain. With the increase in resources and operations in an organizations supply chain, variability destroys synchronization among the individual processes leads to poor delivery performance. Many firms today compete on their ability to deliver customer order quickly and reliably.

As study carried out by the Nakuru County First County Integrated Plan (2013) it defines Nakuru as a county blessed with agriculture and tourism resources which have attracted several manufacturing firms. Manufacturing firms have a role to create wealth and employment by 2030. Some of the manufacturing firms in the region include animal feeds manufacturing firms, pyrethrum processing plants, textile industries, agricultural implements, dairy products, engineering works and body builders, saw mills, canners and edible oils and soap manufacturers. Manufacturing activities account for the greatest share of industrial production and forms the core of the industry. Chopra and Meindl (2007) the difference between what the final products is worth to the customer and the costs the supply chain incurs in filling the customer request generates the value of a supply chain. Kempf(2004) suggested that for a delivery of a product to be successful, three structural factors are considered. First the raw materials and elements required to develop new or existing products. Second, involves processes alongside skills applied on delivering a product within the manufacturing plant. Lastly, it looks at manufacturing associated costs such as inventory holding costs and selling prices.

Harold (2013), defined value as what the benefits are worth at the end of the delivery time. The manufacturing process requires people who can convert benefits to final value. In order to achieve maximum benefit, value management should be initiated from the beginning of the manufacturing process not only when a need arises. The concept of value as used in value management distinguishes this method from conventional methods of cost review. It achieves this by considering the relationship between function, cost and worth (Harold, 2013). Because of the much attention given to production and operation costs, organizations adopt strategies and initiatives to ensure costs are reduced to the lowest possible level and productivity is enhanced to the highest level possible. Value management strategies are adopted in all manufacturing operations. To ensure goods are delivered on time, manufacturing firms resort to cost reduction, new product development, pricing and staff competence.

According to McCormack (2004) delivery of a product is one of the supply chain processes among planning, sourcing, making and returning as presented in the supply chain operations reference model (SCOR). DaSilveira and Arkader (2007) agrees that timeliness of a product is a key concern to consumers. This study will seek to analyze the influence of value management approaches on time delivery of products in manufacturing firms in Nakuru.

### **1.1.1 Manufacturing firms in Nakuru**

Manufacturing firms in Nakuru town vary based on size, capital and turnover. They are classified as food and beverage, chemical and allied, textiles and apparels, plastics and rubber, services and consultancy, construction and timber and wood. The main aim of these manufacturing firms is to produce goods to consumers and in return make profits enough to remain in business. The industry is affected by various challenges including rising prices of commodities, increasing transportation costs due to a rise in oil prices and decline in consumers. Growth of modern methods in the manufacturing industry for example innovation, research and development, industrial knowledge base has been limited to lack of investment. Inefficient flows of goods and services are due to inefficiency in local transport. Poor infrastructure and government policies have led to increase in prices of manufactured goods (Kevin, 2016). Customer satisfaction is the key to this industry and can be achieved by delivering goods on time.

### **1.2 Statement of the problem**

Manufacturing firms today compete on their ability to deliver customer order quickly and reliably whereby customer demand is met with the correct order quantity that is delivered on time. However lack of on time delivery of products leads to poor performance of manufacturing firms. Retail stores in Nakuru have abandoned the routine of ordering manufactured products due to late deliveries as it leads to an average of 9% fallback in their sales. This has led to consumers shifting to other brands which have directly affected the manufacturing firms in the region. Activities carried out by manufacturing firms without proper value mechanisms have led to lack of identification of right time leading to late deliveries. This in turn leads to increased holding costs for the firm when consumers reject the goods due to late deliveries. The manufacturing process requires people who can convert benefits to final value. In order to achieve maximum benefit, value management should be initiated from the beginning of the manufacturing process not only when a need arises. Various studies have been conducted with regards to strategies employed in manufacturing firms and delivery of goods. Studies have showed that effective customer delivery influences customer satisfaction and service quality. Customers are said to be more satisfied if their suppliers are able to meet and fulfill their orders within the required time. The study focuses on the end result of satisfying the customer but not the value management approaches applied to deliver the final product to consumer. A survey on the effects of competitive strategies on performance of dairy firms in Kenya was carried. However the studies look at the overall performance of the firm when strategies are employed but not on a specific result of the supply chain process like on time delivery. This study will sought to analyze the influence of value management approaches on on time delivery of products among manufacturing firms in Nakuru.

### **1.3 Objective of the Study**

#### **1.3.1 General Objective**

The general objective of the study was to analyze the influence of value management approaches on on-time delivery of products among manufacturing firms in Nakuru.

#### **1.3.2 Specific Objectives:**

- i. To determine the influence of cost reduction on on-time delivery of products among manufacturing firms in Nakuru.
- ii. To determine the influence of product development on on-time delivery of products in among manufacturing firms in Nakuru.
- iii. To assess the influence of pricing on on-time delivery of products among manufacturing firms in Nakuru.
- iv. To assess the impact of staff competence development on on-time delivery of products among manufacturing firms in Nakuru.

### **1.4 Research Hypotheses**

H<sub>01</sub> Cost reduction has no significant influence on on-time delivery of products among manufacturing firms in Nakuru.

H<sub>02</sub> New product development has no significant influence on on-time delivery of products among manufacturing firms in Nakuru.

H<sub>03</sub> Pricing has no significant influence on on-time delivery of products among manufacturing firms in Nakuru.

H<sub>04</sub> Staff competence has no significant influence on on-time delivery of products among manufacturing firms in Nakuru.

### **1.5 Justification of the Study**

It was anticipated that the output of this study would be of use to the management, Kenyan government, investors and the manufacturing entities under study. Collectively they work together to deliver

goods and services to consumers hence this study would help them gain understanding on the value management approaches and their influence on on time delivery of products. The manufacturing firm will be able to realize improved innovation whereby risks will be mitigated during product development since important decisions are made in the early stages during the design process, identify cost drivers (process, material, features and design) and assess cost gap to benchmark and reduction potential based on function on historical proforma basis. Due to increased profits the government will be able to get more revenue through taxation that is based on the items sold hence improvement in the economy due to high productivity in the business. Lastly, the study findings will help the future researcher when they are carrying out their research on related areas since the study finding will provide the information for them.

### **1.6 Scope of the Study**

This study sought to analyze the influence of value management approaches on on-time delivery of products in Kenya. It was confined to manufacturing firms in Nakuru. The study focused on value management approaches as the independent variables and on time delivery as the dependent variables. The study utilized primary data obtained from questionnaires that were administered to the managers in the manufacturing firms. The study was conducted over a period of ten months. The budget for the research was 108,200.00

### **1.7 Limitation of the Study**

The study experienced an initial slow response from the respondents who are mainly busy managers. This was mitigated by having constant follow up on phones and the physical visits to the respondents' offices by use of research assistants.

Another limitation in this study was that the departments considered some information as confidential and hence were not willing to reveal most of it. The study overcame this limitation by having a letter of introduction from the university to assure the respondents that the information provided would be used for academic purposes only and would thereby be treated with confidentiality.

## **II. Literature Review**

### **2.1 Introduction**

This chapter consisted of review of past studies review of criteria literature, summary, gaps and conceptual framework. The theoretical components included concept such as independent and dependent variables. It involved the systematic, identification location and analysis of documents containing information to the research problem being investigated. It was done with an aim of known approaches, the problem in question.

### **2.2 Theoretical Review**

According to Hawking (1996) theories are analytical tools for understanding, explaining and making predictions about a given subject matter while (Popper, 1963) explains theory as a set of statements or principles devised to explain a group of facts or phenomena especially one that has been repeatedly tested or is widely accepted and can be used to make predictions about natural phenomena. A formal theory is relational in nature and is only meaningful when given a relating component by applying it to some extent (Zima, 2007). This study was based on two theories and one model.

#### **2.2.1 Strategic choice theory**

Child developed this theory in 1972 as alternative that emphasized the agency of individuals and groups within organizations to make choices that dynamically influenced the development of the organization. This was to facilitate adoption to the environment in order to achieve set goals. Strategic theory draws the relationship between top management choices and firm performance and the overall interaction between the environment and organizations. Strategy defines the scope of a firm based on the markets it competes with. It is also concerned with how the firm competes within the industries or markets. Grant and Charles (2004) looks at strategy as one that helps a firm make a more proactive approach towards shaping its environment.

Strategic decisions can be classified in three categories. First, decisions related to the main products or services produced by a firm. When making this decision manufacturing firms have to identify their target markets and how they will identify to their products and services. Second, decisions related to the development and implementation of new technology to be used on the products or services and lastly, decisions related to product differentiation and organizational structure integration. Products undergo various processes in order to be considered fit for sale to the market. In each of the processes decisions have to be made that will successfully complete the entire process. In order to reach desired goals, strategic decisions have to be made by the top management, therefore during formulation of a strategy the firms goals should be a top priority Grant and Charles (2004).

According to Ketchen and Hult (2007), they both agree that managers play a crucial role in achieving the organizations set goals through decision making and leading the changes that arise during the process. Strategic decision making is based on three levels; strategic (top management level), tactical (middle level) and operational (bottom level) management. In manufacturing firms for products or services to come forth or be produced decisions have to be made not only to serve the current situation but for the longer period the business is in existence. In the context of this study, the variables i.e cost reduction, new product development; pricing and staff competency are strategic in nature. This study will use this theory in showing how choices are made when applying value management approaches in the entire process of manufacturing to finally deliver the product.

### **2.2.2 Resource Based Theory**

According to Birger Wernerfelt and Barney who developed this theory in 1984, describe resource as non-substitutable when competitors cannot find alternative ways to gain the benefits that a resource provides. The key concepts covered by resource based theory are resources, capabilities and strategic assets. According to Dyer and Singh (1998), firms that combine their resources in a unique way may achieve an advantage over their competing firms who are unable to do so. By owning scarce resources and assets, excelling in core competencies and capabilities, firms can reach a market advantage and gain sustained competitive advantage. As observed by Tukamuhabwa, Eyaa and Derek (2011), internal resources of a firm are of competitive advantage. Such resources are unique, rare and very valuable. Karia (2011) observed valuable resources as capable of implementing strategies that improve performance, exploit opportunities in emerging markets and neutralize threats that may arise. Individual resources, competencies and capabilities of the organization are considered part of firms' resources.

It aims at identifying and classifying the firms' resources, appraises the strengths and weaknesses relative to competitors and identifies opportunities for better utilization. This theory looks at what a firm can do effectively than its rivals and appraises the rent generating potential of resources and capabilities in terms of their potential for sustainable competitive advantage and the appropriability of their returns. Assumptions that arise from this theory, resources and capabilities are distributed among firms therefore remaining stable over time (Karia, 2011). According to Powell (2001) resource based view is one of the most widely accepted theories in relation to strategic management. Hence this theory selects a strategy which best exploits the available resources of the firms resources and capabilities relative to external opportunities and identifies the resource gaps which need to be filled by investing in replenishing, augmenting and upgrading the firms resource based. A firm's product development strategy is determined by the resources available and the ability to use them to obtain good performance. As observed by Chenhall (2005) the manufacturing firms should align their resources, strategic choices when implementing a strategy at the process level and give room for interaction between the products and associated processes. Best resources of the firm are those that are durable, unique, and difficult to transfer, cannot be copied and the firm has full control and possession of them. This study will use this theory in demonstrating how the variables are interconnected to produce quality products and delivery of products on time.

### **2.2.3 Value chain model**

The concept of value chain model was introduced by Michael Porter (1985) explaining how primary processes are end-to-end, cross functional and deliver value to the consumers. The primary activities are inbound logistics which involve; relationships with suppliers and all activities required to receive, store, disseminate inputs. Operations on the other hand include all the activities required to transform inputs into outputs (products and services). Outbound logistics involve all the activities required to collect store and distribute the output. Marketing and sales enable the company to advertise their products to their potential customers and service.

The support processes can be strategic and important to the organization to the extent that increases their ability to effectively accomplish the primary processes. The other supporting activities in the value management process include human resource management which facilitates the process of bringing qualified people on board, training and developing them. Procurement is involved in acquisition process of raw materials or resources for the firm. Technological development pertains equipment and procedures used in the transformation process of raw materials into finished products. Infrastructure is the backbone of the value management structure which consists of functions such as accounting, legal, finance, planning and transportation.

Manufacturing firms seek to ensure that consumer needs are met beyond expectation and with this the need to determine supply chain performance. Primary processes generate direct value to customers while support activities do not (Porter, 1985). Kleijn and Rorink (2012) also concur with Porter (1985) on the primary processes but in addition also incorporate purchasing in the primary processes. The value chain model is

relevant to this study in that it shows how primary processes work together to deliver products on time to consumers. It will be of relevance to this study as it will help in identifying the support activities while complementing the theories discussed earlier in this study.

### **2.3 Empirical Review**

This section discussed past studies that had been done relating to objectives of the study. It reviewed literature on influence of value management approaches on time delivery of products among manufacturing firms in Nakuru Town. The review of empirical literature plays a key role in establishing research gaps hence enabling a researcher to build a study.

#### **2.3.1 Cost Reduction and On-time Delivery of Products**

As observed by Ondieki (2012), companies that face diverse sourcing, production and distribution decisions need to weigh the costs associated with materials, transportation, production, warehousing and distribution to develop a comprehensive network designed to minimize costs. Firms spend a substantial amount of capital on materials (Asaolu, Argorzie & Unam, 2012). In many cases, the cost of materials exceeds 50% of the total goods produced. This therefore requires a firm to invest considerably and plan well in order to control and minimize wastage which invariably affects the performance and profitability of organizations; (Ramakrishna, 2005) identifies that materials management was treated as a cost centre since purchasing department was spending money on materials while store was holding huge inventory of materials stalling money and space.

According to Richard (2009) cutting supply chain and logistics costs, cost reduction comes hand in hand with productivity and quality. Using continuous supply principles to logistic operations and supply chain leads to improved continuous supply of raw materials and finished goods. Customers pay for the final product or service as they regard as a value added effort of transforming raw materials into finished goods. Effective cost management and reduction in inventory management is a path leading to an organization achieving its core values and objectives. Proper planning and good reduction techniques in inventory management can save the company costs brought about by purchasing are price, cost and total value analysis. This leads to cost reduction in the budget.

Weele (2010) suggested that well defined inventory control policies can reduce the labor costs associated with managing the inventory. Whenever inventory requires movement from one location to another for storage or order picking this automatically calls for labor. If a company keeps searching for lost inventory, continuous movement of stock due to poor space utilization, this automatically leads to increased labor costs. These incidents can be reduced if there is proper inventory management. Weele (2010) argues that huge costs are incurred during the process of acquiring raw materials therefore cost reductions can be achieved during this process. Bulk purchase of these materials and selling in small portions is an advantage to the manufacturing firm since they reduce costs and improve product accessibility of finished products to consumers.

According to Connor and Schiek (1997) food manufacturing plants on the basis of their cost structure have been classified as demand oriented, supply oriented or foot loose. Demand oriented firms are located near product markets to reduce distribution costs while supply oriented firms have a total cost structure superseded by the purchase of a single input commodity since they tend to locate near the source to reduce procurement costs. Some of these firms include meat packaging companies, grain millers, and plant oil processing among others. On the other hand foot loose firms are influenced by either demand or supply factors. These processors prefer to be located in areas that are accessible to transport, business services and capital. Examples of products produced in these firms include chocolate, mixed nuts, spices (Henderson & McNamara, 2000).

Reduction in cost is possible through effective materials management which leads to company saving on total cost at a potential of 6% which is achievable. Types of materials to be managed in a manufacturing firm ranges from purchased raw materials, work in progress (WIP) and finished goods, he also identified basic price, purchasing cost, marketing cost, obsolescence and wastages as the various costs that arise during manufacturing. Closeness to product markets is a very important factor for demand oriented food processing firms since their total production costs are associated with distribution of final products (Henderson & McNamara, 2000). Increasing competitiveness could be achieved by larger potential markets taking advantage of lower transportation costs. Market potential captures effective demand relative to the supply of competing manufactured goods. Higher value crops like fruits and vegetables are mostly produced near urban centers while lower value crops like grains tend to be produced in non-core regions (Henderson & McNamara, 2000).

A study conducted by CGN (2016) industry consolidation pressured a US food manufacturer to significantly cut costs. CGN was engaged to assess cost inefficiencies in the point of purchase (POP) materials process with the goal of identifying and planning the execution of opportunities that would deliver 10% reduction in cost against the initial project scope of \$36.5M. They identified key areas costs were incurred that included wastes at the POP, inventory handling and determining whether vendors were optimally producing for demand. CGN suggested physical material and distribution mapping, assessment of third party vendor agreements and performance and end to end value stream mapping for three different network approaches for

implementations. Results showed that 10 % ( \$7.7M) annual cost reduction and \$82.1M in inventory asset reductions would be achieved.

According to Bowersox, Closs and Cooper (2010) the time required to complete movement refer to the speed of transportation. Speed and cost of transportation are related on the basis of; transportation firms charge higher rates for faster delivery and the faster the transportation service during inventory movement, the shorter the time interval awaiting delivery and the higher the charges. Therefore when selecting the best transportation method, speed and cost of service should be factored in. This geographical advantage applies both to the factory and the farmers. Weele (2010), explains of geographical discount as one that is given to customers who are located close to the supplier's factory or distribution centre, making the transportation costs much lower than average thereby part of the cost benefit is passed on to the buyer when they purchase a product. In this way a local supplier can keep more distant suppliers away.

### **2.3.2 New product development and on time delivery of products**

As observed by Okello and Were (2014) manufacturing process of a given product starts upon arrival at the firm from the source hence the beginning of transformation into other various forms. For example, food processing involves the use of clean harvested farm products or meat products and uses them to produce attractive, marketable and most importantly long shelf life food products. New product development involves the process of coming up with a different material which plays several roles for the organization. Other than maintaining growth and protecting the interests of investors, employees, suppliers of the organization, new products help keep the firm competitive in a changing market hence direct impact on competitiveness.

According to Okello and Were (2014) industry specific features and consistent integration enhance better quality, service, product safety and operational efficiency. Specialized tools address the critical issues in food product management including product movement, total quality management, product identification due to its unique features based on the right specifications, shelf life, production lots and hold management. According to Aitken (2003), the product life cycle describes the stages a product goes through from beginning to end. The competitive criteria generally differ during the different phases of product life cycle; availability and technology are needed at the introduction phase while cost, quality and speed are needed at the maturity phase. Chang (2006) describes the life cycle stages as directly influenced by the supply chain design hence a firm's product specific procurement, manufacturing and distribution priorities are to be dynamic.

As observed by Lyson (2007), he affirms that for an organization to remain popular and gain a larger market share, production of quality products is the leading factor. Market share analysis is a grid of performance measurement against competitors. As observed by Baker (2013), PUMA challenged the business community with the idea of renting shoes in the future which enabled changing the shoe designs and increased the participation of consumers in the product development process. Kotler (2011) describes new product development as the process from the generation of an idea for a new product to its successful commercialization. A major concept of the societal and marketing is the creation of new products and services that satisfy customer needs better in the long term. Product life cycle is usually shortened by the need and desire for new products for consumers, hence creating room for better products and services. Desire novelty is an essential characteristic of human nature.

Garvin and David (2002) suggested an eight dimensional framework surrounding a product which includes performance, features, reliability, conformance, durability, serviceability, aesthetics and quality. As observed by Jobber (2007), firms face diminishing returns as there is continuous increase in performance. Quality of products should be managed through the following three strategies; first continuous improvement of a product leads to high returns and market share. Second maintaining a stable product quality at the various levels reduces the chances of alteration when a new opportunity comes up or a fault occurs. Lastly, some companies cut the quality of their products in order to offset the rising costs of production while to some reduction of quality is in order to increase current profits which affects profitability in the long run.

McDonald is an American hamburger and fast food restaurant chain. Its success stems from new product development. Their products are produced on the basis of permanence on the menu (introduction of new products on the menu if well received by customers is adapted permanently into the menu), temporary strategy (food products issued for a specific period of time) and those that are customer demand oriented. In India for example, the Big Mac has been modified into the Maharaja Mac which contains no beef in keeping with the local diets. In Greece, pita bread is used instead of bun by the Big Mac. McDonald local adaptation strategy is a method used when developing new products for local markets whereby they pick a product and modify it to meet local tastes.

According to Nunes, Yardley and Spelman (2013), new technologies contribute to customers' empowerment in new product development. The changing consumer behavior creates opportunities for new product development. Customers can participate in every decision in the new product process. A major characteristic of the contemporary markets is the networked customers. From the study, the networked

customers are increasingly cooperative placing a strong emphasis on responsible production and consumption. They reuse, recycle or share products that they no longer use. Business growth can be realized through innovation which can be defined as introduction of new development in firms. This strategy involves creating or reengineering products or services to get new market demand. Introduction of new processes improve manufacturing companies productivity. Developing or applying new marketing techniques to expand sales opportunities and incorporate new forms of management systems and techniques to improve operational efficiency (Porter and Stern, 2001).

### **2.3.3 Pricing and On-time Delivery of Products**

According to Myers (1997), price is the amount of money charged for a product or service. It's inclusive of the cost of production, cost of providing services associated with the product and the profit required to be made in order for the business to stay afloat. Pricing strategy plays an important role in consumer purchasing behavior and decision making process. Price is one of the elements of the marketing mix and due to competition from other firms; it becomes a difficult decision to make. Consumers' perception heavily depends on the price attached to it. Setting a low price on a product so as to attract consumers can be misleading on features such as quality (Myers, 1997).

As observed by Myers(1997), purchases done by consumers can be categorized into two; consistency and inconsistency. Consistent brands are those perceived to be similar in what they offer and are repeatedly and predictably purchased. Highly branded products have a high rate of repeat purchasing hence a natural advantage in the market because of their exposure. Inconsistent brands are those where consumers show differences towards the brand set in a category and this is reflected in reinforcing or variety seeking behavior within consumer overall purchases. Pricing is a strategic choice and will be partially influenced by environmental factors like political, economic, social and technological factors.

According to Theodosiou (2000), laws and regulations influence greatly product features in compliance with health and safety standards, environmental regulations, measure systems which all are key factors to determining price of a product which may prevail in foreign markets. Economic environment of a country influences its pricing decisions. They have a strong impact on firms costs, determines demand potential for a particular product/ service. This is in relation to what customers can afford and are willing to pay. Some products that are considered essential in some countries to our country they are considered as luxury items. Therefore the purchasing power of targeted customers is a function determined by the level of economic development of the country hence the demand for a product/ service at different levels (Jain, 1989).

A study conducted by Neelan and Mike (2016), showed that over 53% of manufacturing firms in South Africa make price setting decisions on information relating to their current trading conditions hence firms reviewing their prices more often than they changed them. The period for changing prices ranged between 6 months as the one used by most companies and 12 months as the highest time difference for price change hence showing price rigidity in the manufacturing sector. South African manufacturing companies are less flexible to changes in market and economic conditions compared to companies in Europe where state dependent or a combination of state and time dependent rules are generally more popular. Human beings are social and dynamic since they originate from different cultures hence different tastes, buy different products hence different responses with regards to that product. Therefore the demographic structure of a market should be considered as important. The world is becoming global with the old generation being faced out, new technology hence the export pricing has to adapt to social factors (Theodosiou, 2000).

As suggested by Theodosiou (2000), in order to select the right pricing strategy, a firm has to carefully examine and evaluate the target markets characteristics and purchasing behavior. Customers' preferences, perceptions and purchasing behaviors directly price levels (Theodosiou, 2000). A well-developed infrastructure is a very important factor when it comes to responding to customers' needs. International firms heavily rely on existing infrastructure in local distribution for transportation and distribution of their products to consumers. This is a significant effect on costs which in turn influences the price attached to a product and the profits. Technology is dynamic but provides and increases the opportunities for existing competitors and opens opportunities for new competitors. For example the internet has provided an avenue for online contact with the consumers, suppliers and partners. It provides both opportunities and challenges (Etienne, 2008).

According to Etienne (2008) he came up with three strategies that could be used when considering the price of a product which are competitors pricing, skimming and penetration price. In competitors pricing, producers should always be ready to adjust any emerging opportunities or dangers that may arise in the dynamic market. In order to attract a large market share of consumers and generate a consistent turnover, it's necessary to set the price in the middle with the competitors. Other factors include freight and transportation, duties and risks. Skimming is a strategy most suitable when a product is priced as high as the market can bear.

As observed by Etienne(2008) in such a case, few buyers are attracted resulting to low sales volume. It's appropriate when a new product is introduced into the market and is on great demand. The ideology behind



this strategy is to return high profits even at the expense of losing a large number of customers. For example the Mercedes- Benz and BMW cars, consumers buy them at a high price and they know they are costly but these two companies are not affected as they know they have a prestigious reputation of high quality products and customer service (Etienne,2008). Penetration price is a model designed to grab market share quickly by using low profit margin to penetrate the market. Penetration is used when prices are set low in order to attract new customer and gain market share then later increase prices. Sometimes low prices can be perceived to be low quality hence becomes difficult to increase price without incurring loss in the future (Etienne,2008).

#### **2.3.4 Staff Competence and On-time Delivery of Products**

According to Aaker, Fournier and Brasel (2001) successful implementation of a strategy highly depends on an organizations competence which highly depends on the personnel qualifications as experiences will be needed to implement the strategy selected by the company. According to Tyson (2006), cost factor is always an important factor in the process of recruitment since efficient recruitment of staff describes an organization as what resources they want, available resources and how to find them without stretching organization finances. In some cases an organization may prefer to fill vacancies internally while some may prefer to advertise whereby it incorporates the internal and external applicants.

Richard (2009), some organizations opt to retain staff and reduce hiring while some opt to retain only best performers. Employee turnover at times is considered necessary as it brings fresh blood into the organization with new skills and ideas. New ideas and experiences bring a new dynamic revolution. Level of labor turnover based on performance helps managers control the labor costs incurred. According to Aaker, Fournier and Brasel (2001) training on a continuous mode builds employee confidence in their area of specialization hence achieved results and improved supply chain performance. Level of motivation employees at a firm are exposed to the higher the chances they will be able to perform and implement the strategy presented by the firm. Motivation can be achieved for example by linking the remuneration structure to compliance with operating performance objectives and targets.

According to Weil & Woodall (2005) training and development is used to close the gap between current performance and expected future performance. According to Appiah (2010) training has been proved to generate performance improvement related benefits for the employee as well as for the organization by developing employee knowledge, skills, competencies and behavior. A study carried out by (Aidah, 2013) on Uganda's top three telecommunication companies; Mobile Telephone Network, Warid and Uganda Telecom. It showed that 72.5 % (87 respondents) of their employees usually go for training with 27.5%(33 respondents) have not gone for any form of training. This shows that training is targeted for specific employees or is task related job training.

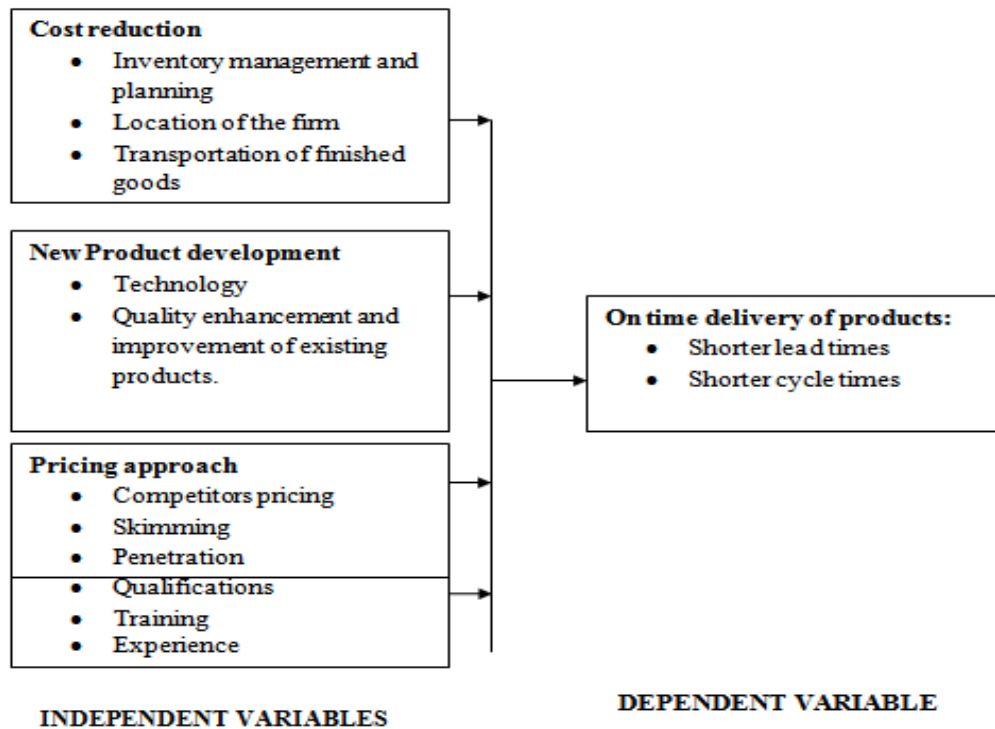
According to Zhenget. al (2011), a significant relationship exists between employee training and performance of tasks assigned. Success and growth of organizations is dependent on employee training. Training is important to enhance knowledge, skills attitude of employees. Many companies offer continuing training opportunities for employees, focusing on skills that can improve efficiency. Higher motivation and morale at work is as a result of training which is considered an investment in their ability and development resulting in lower labour turnover. Armstrong (2012) agrees with that trained employees exhibit confidence when making decisions and performing their duties since they know their expectations and can achieve them. Such employees are likely to accept change and come up with new ideas. Employees who are trained are able to make better and economic use of material and equipment thereby reducing and avoiding waste Cole (2002).

Richard (2009) observed that the cost of performing an activity can decline over time as the experience of company personnel builds while reduced management levels reduce corporate overhead costs. He explains that the learning curve with time changes as experience obtained by employees grows since they are able to handle production on their own with minimum supervision, improved efficiency in streamlining production processes. Reduced defects and product rejections leading to increase in batch size hence reduced production downtime. Organizational structure comprising of lean staff enables an organization to adjust rapidly to the continuous changing environment and innovation. Fewer staff are easy to manage and adapting to change is not difficult. They point out layoffs are necessary when workload is small to reduce costs and can be called during the peak season to resume work.

Actual performance is a function of employee effort, employee skill, and random effects. The random effects include performance measurement error, problems or inefficiencies created by coworkers or adjacent work stations, illness, and weather related production problems (Raiborn, Michael & Janice, 2006). Victor (2014) observed that over time, knowledge and employee experience grows. Operations within the manufacturing firms can be carried out at a more complex level with minimal supervision. This usually increases the confidence of the individual and the team to deliver competent performance while making them aware of their limitations

## 2.4 Conceptual Framework

This study was summarized in a conceptual framework with the independent variables being cost reduction, new product development, pricing and staff competence. Dependent variable is on time delivery of products.



**Figure 2 | Conceptual Framework**

## 2.5 Critique of the Existing Literature to the Study

The current trend of business competition lies outside the walls of organization and is determined by how effectively companies link their operations with their supply chain partners such as suppliers, distributors, wholesalers, retailers and end consumers (Sonja, Sohal&Baihaqi, 2007). It looks at the supply chain as a study with the external factors playing a major role at the start and end processes of a product without looking at how the product develops into a consumable product.

New technologies contribute to customers' empowerment in new product development. The changing consumer behavior creates opportunities for new product development. Customers can participate in every decision in the new product process. A major characteristic of the contemporary markets is the networked customers. Nunes, Yardley and Spelman (2013) describe the networked customers as increasingly cooperative placing a strong emphasis on responsible production and consumption. They reuse, recycle or share products that they no longer use. This study looks at the consumer as a huge contributor in the new product development process. To some extent it ignores the internal personnel who generate the ideas based on experiences and knowledge. Customers ideas still have to undergo discussion before a final product and strategic decisions are made.

According to Dearden, Reed and VanReenen (2006) on the job training was directly associated with productivity increases. A panel of British industries carried out a research and found out that 1% increase in work training raised the value added per hour by about 6% and hourly wage by about 3%. The level of employee satisfaction at the workplace varies from one person to another depending on the job at hand, employee experiences and personality. The attitude of an employee defines the level of job satisfaction. To some employees job training is not the only motivation they need (Aidah, 2013). Employees want to be recognized, promoted and remuneration. Organizational structure may also hinder the way employees make decisions with regard to work hence a delay in production as they await approval.

Weele (2010) argues that huge costs are incurred during the process of acquiring raw materials therefore cost reductions can be achieved during this process. Bulk purchase of these materials and selling in small portions is an advantage to the manufacturing firm since they reduce costs and improve product

accessibility of finished products to consumers. It's cheaper buying in bulk but the chances of having wastes is high. Production is determined by customer demand therefore holding huge stock of raw materials in the view of saving money could lead to huge wastages.

## **2.6 Summary**

This chapter has reviewed extensively the literature on the subject of influence of value management approaches on on time delivery of products among manufacturing firms in Nakuru. The chapter established that value management approaches can be categorized into four approaches namely cost reduction, new product development, pricing and staff competence. It is upon this classification that this study is based. In order to understand these value management approaches, the study utilized two theories and one model. The theories are strategic theory (Child, 1972) and resource based theory (Birger& Barney, 1984). The value chain model by Porter(1985).

The study delved into empirical literature review where it analyzed past studies in the effects of management approaches on on time delivery of products in manufacturing firms. From this study a conceptual framework was developed showing the relationship between the independent variables and dependent variable. This was followed by a critique which showed that the empirical link between value management approaches and on time delivery had not been clearly established as was explained in the subsequent research gaps in order to facilitate the deeper understanding of the research problem. Research gaps were evident since studies were conducted in different contexts from the context of the current study.

## **2.7 Research Gaps**

Various studies have been conducted with regards to strategies employed in manufacturing firms and delivery of goods. Yin-mei (2013) carried out a study on mechanisms linking employee effective delivery and customer behavioral intentions. The study showed that effective customer delivery influences customer satisfaction and service quality. Customers are said to be more satisfied if their suppliers are able to meet and fulfill their orders within the required time. The study focuses on the end result of satisfying the customer but not the value management approaches applied to deliver the final product to consumer. Maluku (2013) did a survey on the effects of competitive strategies on performance of dairy firms in Kenya whereby the strategies tested with focus strategy having the strongest relation. It also emerged that dairy firms did not incorporate delivery costs when setting up prices of their products. However the studies look at the overall performance of the firm when strategies are employed but not on a specific result of the supply chain process like on time delivery.

Laititi (2014) conducted a study on generic strategies employed by food and beverage firms in Kenya and their effect on sustainable competitive advantage. The study mainly focuses on the business gaining competitive advantage. Competition among firms is important but delivering the right order of requested goods on time is the ultimate way of standing out in the competitive market. He observed the need of value management practices that reduce costs be explored by firms. Nelson (2014) on the other hand carried out a study on impact of cost reduction strategies on performance of tea factories in Embu.

Findings pointed out that cost reduction strategies should be employed in human resource management, procurement practices and utilization of modern technologies to improve performance. Performance in this case is general in the manufacturing firm hence not narrowing down on any specific area of the supply chain. From the above studies, researchers have not been able to carry out a study on a specific part of the supply chain process hence this study will help bridge the gap. The study will seek to analyze the influence of value management approaches on on time delivery of products in Kenya.

## **III. Research Methodology**

### **3.1 Introduction**

This chapter presented the methodology which was to be used in the study population and sampling methods and techniques. It describes the research design and target population and sampling design data collection methods and data analysis method of the study. It also explained the validity and reliability of the instrument used in the study design and the pilot study.

### **3.2 Research Design**

A research design refers to the plan or outlines that the researcher follows in order to ensure that the research objectives are met. This study used descriptive research design to collect the quantitative and qualitative data. According to Ondiek (2012), a descriptive research design is one perceived to give an accurate profile of persons, events or situations as they are on the ground. A survey method of research was used as participants would answer questions administered through questionnaires.

### 3.3 Target Population

Mugenda and Mugenda (2008) defines a target population as that population to which a researcher wants to generalize the findings of a study. The target population of this study was 84 managers from 15 manufacturing firms in Nakuru. These managers were derived from the departments of procurement, production and operations, marketing and human resource management. The rationale for choosing managers was because they have overall knowledge of the performance of the department functions. The researcher employed Census sampling design since the target population was small. In this study, all the 84 managers were issued with questionnaires. According to Cooper and Schindler (2011), a census is a count of all the elements in a population.

**Table 3.1: Distribution of population**

MANUFACTURING FIRM	MANAGERS				
	Procurement	Production & operations	Marketing	Human Resource Management	
Crown Beverages	2	2	2	1	7
Fontana Limited	2	1	1	1	5
Happy Cow Ltd	1	1	1	1	4
Menengai Oil Refineries Ltd	2	2	3	1	8
Njoro Canning Factory (Kenya) Ltd	2	2	3	1	8
Valley Confectionery Ltd	1	1	2	1	5
Spin Knit Limited	2	2	2	1	7
Shayona Limited	1	1	1	1	4
Sierra Flora	1	1	2	1	5
Pyrethrum Board Of Kenya	1	2	2	1	6
Nakuru Plastics	1	1	1	1	4
Kapi Ltd	1	1	1	1	4
Gone Finishing	1	1	1	1	4
Comply Industries Ltd	1	2	2	1	6
Bedi Investments Ltd	1	2	3	1	7
TOTAL					84

### 3.4 Research Instruments

Both primary and secondary data was used. Primary data is information gathered directly from the respondents and the secondary data is information gathered from studies done by others (Kothari, 2004). The primary data was collected by use of questionnaire. The questionnaires were considered appropriate because it is more convenient to administer. Secondary data was obtained from a review of key publications and literature on value management approaches.

### 3.5 Data Collection Procedure

The researcher obtained an introductory letter from Jomo Kenyatta University of Agriculture and Technology so as to prove that the research was purely for academic purposes. This assisted the researcher to get all the information from the respondents. The individual respondents were issued with the consent statements requesting for their participation in filling the questionnaire. The study exercised care and control to ensure all questionnaires issued to the respondents were received and to achieve this, the study maintained a register of questionnaires, which were sent, and received. The researcher used drop and pick method to obtain information within minimal time.

### 3.6 Pilot Study

According to Mugenda (2003), pilot test is necessary for testing the reliability and validity of the instruments that will be used in the study. In conducting the pilot study, the researcher was interested in establishing whether the respondent had the same understanding of the questions and thus would offer the information required. For the first test the researcher administered the questionnaires to 6 respondents whom were randomly picked among the Kapa Oil Thika. The rule of the thumb states that 10% of the sample should constitute the pilot test (Cooper & Schindler, 2011). The pilot test was within the recommendation. Babbie (2009) points out that pilot testing is conducted to help identify and change confusing, awkward, or offensive questions and techniques thereby enhancing the validity and reliability of the research instruments.

#### 3.6.1 Validity of the Instruments

Validity of a questionnaire represents the degree to which data collection instruments measures what it purports to measure. The study adopted construct validity which was ascertained by defining clearly the variables to be measured. The structured questionnaires' validity was provided through adequate coverage of the topic under investigation as per the expert advice. According to Mugenda (2003) expert opinion is used to check the content and format of an instrument to judge validity of the content.

**3.6.2 Reliability of the Instrument**

Kothari (2004) defines reliability as the ability of that test to consistently yield the same results when repeated measurements are taken of the same individual under the same conditions. Basically, reliability is concerned with consistency in the production of the results and refers to the requirement that, at least in principle, another researcher, or the same researcher on another occasion, should be able to replicate the original piece of research and achieve comparable evidence or results, with similar or same study population. The reliability of the study was examined using the Cronbach Alpha coefficient of a threshold of 0.7 and above.

**Table 3.2:** Pilot study results

Indicator	Cronbach Alpha	No of items
Cost reduction	0.804	9
New product development	0.759	6
Pricing	0.712	8
Staff competence	0.747	9
On- time delivery of products	0.762	7

**3.7 Data Processing and Analysis**

Data analysis procedure includes the process of packaging the collected information putting in order and structuring its main components in a way that the findings can be easily and effectively communicated (Zikmund, 2003). Quantitative research method was used to analyze the data collected. According to Zikmund (2003) quantitative research permits specification of dependent and independent variables and allows for longitudinal measures of subsequent performance of the research subject. The data was cleaned and analyzed using descriptive and inferential statistic to determine and report the way things are. Descriptive analysis was in the form of frequencies, percentages, means and standard deviation while inferential (multiple regression analysis) statistics was applied. While inferential statistics analysis involves the process of sampling and the selection of a small group assumed to be related to the population from which it is drawn (Best & Kahn, 2003), inferential statistics was used to draw inferences about a given phenomenon in the population based on the results from the sample size, and to test hypothesis and enable the researcher generalize results from the sample of the population.

According to Cooper and Schindler(2008) multiple regression analysis is conducted on each of the research question indicating whether the individual question is statistically supported or not at 95% confidence level. Data was collected by means of Statistical Package for Social Sciences (SPSS) and presented in the form of tables and discussions. Multiple regressions was used to analyze the influence of value management approaches on on time delivery of products of products in Kenya. The empirical model was thus in the form of:  

$$Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + e$$

Where;

$x_1$ =Cost reduction

$x_2$ = New product development

$x_3$ = Pricing

$x_4$  = Staff competence

Y= On time delivery of products

$\beta_0$  is a constant which is the value of dependent variable when all the independent variables are 0.

$\beta_1; i = 1,2,3,4$ , is the regression coefficients which measures the change induced

by  $X_i; i=1, 2, 3, 4$  on Y.

e is the error term.

**IV. Research Findings and Discussions**

**4.1 Introduction**

This chapter discussed the findings of the study. Both descriptive and inferential statistics were presented in tables and figures and discussed.

**4.2 Background Information**

**4.2.1 Response Rate**

The researcher issued 84 questionnaires to the targeted respondents. Out of the questionnaires issued, 71 (84.52%) were returned fully filled. According to Best and Khan (2006) return rates of more than 60% are considered to be very good. The response rate of the study being 84.52% was very good for data analysis. This response rate is summarized in Table 4.1.

**Table 4.1: Response Rate**

Questionnaire	Frequency	Percentage (%)
Number sent out	84	100.0
Number returned	71	84.52
Correctly filled	71	84.52

**4.2.2 Number of Years Working in the Establishment**

The respondents were asked to indicate the period of time they had been in employment with the organization they worked for. This result is shown in table 4.2.

**Table 4.2: Number of Years Working in the Establishment**

Duration	Frequency	Percentage(%)
Less than 2 years	14	19.3
2 years	8	11.4
5 years	31	44
More than 5 years	18	25.3
Total	71	100

Table 4.2 showed that most(44.0%) of the respondents had worked in the establishment for two years, 25.3% had worked for less than 2 years, 11.4% had worked for 5 years, a significant 19.3% of the respondents had worked for more than 5 years. This implied that the respondents had worked at the manufacturing firm hence experience in their area of work hence able to give information by filling the questionnaires.

**4.2.3 Level of Education**

Respondents were asked to indicate the level of education that they had attained. This finding is shown in table4.3.

**Table 4.3: Level of education**

Level of Education	Frequency	Percentage(%)
Secondary	4	5.63
College	46	64.79
University	21	29.58
Total	71	100

According to table4.3, most respondents (64.79%) had college education level, 29.58% had university education level and 5.63% had secondary education level. This finding showed that most of the respondents had adequate level of academic qualifications to enable them understand the questions in the questionnaire and also provide correct responses.

**4.3 Descriptive Statistics**

The study used descriptive statistics to present the frequency and the means of the gathered data on the influence of value management approaches on on-time delivery of products in Kenya.

**4.3.1 Cost Reduction and On-time Delivery of Products**

Respondents were asked to indicate the level of agreement with statements regarding cost reduction. The findings were presented in Table 4.4.

**Table 4.4: Cost Reduction and On-time Delivery of Products**

	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std
We purchase our raw materials in bulk to reduce on costs	4.2	8.5	4.2	67.6	15.5	3.82	0.94
We utilize the warehouse space in order to lower holding costs	2.8	2.8	1.4	66.2	26.8	4.11	0.80
By planning we are able to control costs incurred during production of our goods	4.2	4.2	4.2	64.9	22.5	3.97	0.90
We consolidate our goods during transportation in order to reduce costs.	5.6	9.9	4.2	52.1	28.2	3.87	1.10
By transporting large orders we are able to reduce costs	4.2	5.6	0.0	64.9	25.4	4.01	0.93
We use delivery schedules to dispatch our products as it reduces costs and idleness of products	0.0	5.6	1.4	66.2	26.8	4.14	0.70

Our goods are stored at appropriate distribution points close to customers in the supply chain	5.6	7.1	4.6	51.7	31.0	3.96	1.07
Location of our firm near our sources reduces procurement costs	2.8	5.6	5.6	62.0	24.0	3.99	0.88
Single location of our produced goods enables the firm reduce the costs of maintaining several holding outlets	5.6	14.1	18.3	33.8	28.2	3.65	1.02

It can be seen from Table 4.4 that majority (83.1%) of the respondents were of the view that their firms purchased raw materials in bulk to reduce on costs. Twelve percent (12.7%) were against the view and 4.2% did not take any side. Similarly, majority (93%) of the respondents agreed that they utilized the warehouse space in order to lower holding costs. Only 5.6% of the respondents were against the statement. The study also sought to establish whether by planning they were able to control costs incurred during production of goods, majority (87.4%) of the respondents supported the statement while 8.4% did not support the statement.

Consequently, the study found out that majority (80.3%) agreed that they consolidated goods during transportation in order to reduce costs, this were the respondents who agreed and strongly agreed. About (15.5%) of the respondents disagreed while 4.2% neither agreed nor disagreed. The study further sought to establish from the participants if by transporting large orders the firms were able to reduce costs. Results showed majority (90.3%) of the respondents either agreed or strongly agreed to the statement. From the Table 4.4, it can be seen that majority (93%) consented to the view of using delivery schedules to dispatch their products as it reduced costs and idleness of company trucks. Only (5.6%) disagreed on the same statement.

Goods are stored at appropriate distribution points close to customers in the supply chain. This was indicated by majority (82.7%) response by the respondents who either agreed or strongly agreed to the statement. Twelve point seven percent (12.7%) of the respondents did not think so. Additionally, most participants (86%) agreed that location of the firm near their sources reduced procurement costs. Only 5.6% were undecided while 8.4% either disagreed or strongly disagreed with the statement.

Further, the table showed that majority of the participants (62%) agreed with the statement that single location of produced goods enabled the firm to reduce the costs of maintaining several holding outlets. However, there was also a group of respondents (19.7%) who disagreed with the statement. By and large, it can be deduced from the findings that cost reduction positively affected on-time delivery of products in Kenya. All the indicators in the variable scored a proportion of 62% or above. This implied that the respondents agreed with most of the statements thus affecting positively on-time delivery of products in Kenya.

#### 4.3.2 New Product Development and On-time Delivery of Products

Respondents were asked to indicate the level of agreement with statements regarding new product development. The findings were presented in Table 4.5.

**Table 4.5: New Product Development and On-time Delivery of Products**

	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std
Our customers are empowered in the product development process through technology	2.8	2.8	2.8	46.5	45.1	4.28	0.46
Innovation of new products in the firm has been made effective by use of technology	5.6	4.2	9.9	45.1	35.2	4.00	0.60
Technology has enabled our firm to create and reengineer the product development process	1.4	1.4	2.8	43.7	50.7	4.41	0.78
Changing consumer behavior creates opportunities for new product development	0	4.2	2.8	40.8	52.1	4.41	0.50
Introduction of new products in the market keep us competitive in the industry	5.6	15.5	12.7	43.7	22.5	3.62	0.99
Constant improvement of quality in our products has reduced the level of alteration when a new product is introduced	2.8	1.4	15.5	45.1	35.2	4.08	0.75

Table 4.5 indicated that most respondents (91.6%) agreed that their customers were empowered in the product development process through technology. Only 5.6% of the respondents disagreed with the statement, whereas 2.8% were neutral to the statement. Those who agreed with the statement that innovation of new products in the firm had been made effective by use of technology formed 80.3% of the respondents. This was against 9.8% of those who disagreed. A significant majority of 94.4% of the respondents believed that technology had enabled their firms to create and reengineer the product development process. Those of a contrary opinion were only 2.8%. A further 2.8% of the respondents were neutral.

Most of the respondents (92.9%) thought that changing consumer behavior created opportunities for new product development. Only 4.2% of respondents disagreed and 2.8% were neutral. On the question of introduction of new products in the market keeping them competitive in the industry, a significant majority of 66.2% answered to the affirmative, 21.1% disagreed and 12.7% neither agreed nor disagreed. On the question of

constant improvement of quality in their products having reduced the level of alteration when a new product was introduced, those who answered to the affirmative formed 80.3% against nay Sayers who formed only 3.9%. By and large, all the statements relating to new product development had an agreement proportion of 66.2% or above. This meant that the respondents agreed to all the statement relating to product development. The results therefore implied that new product development influenced positively on-time delivery of products in Kenya.

**4.3.3 Pricing and On-time Delivery of Products**

Respondents were asked to indicate the level of agreement with statements regarding pricing. The findings were presented in Table 4.6.

**Table 4.6: Pricing and On-time Delivery of Products**

	SD (%)	D (%)	N (%)	D (%)	SD (%)	Mean	Std
We set different prices for different market segments	9.9	11.3	4.2	35.2	39.4	3.83	1.32
We offer discounts for specific products	12.7	19.7	4.2	29.6	33.8	3.52	1.44
We set high introductory prices to attract customers	7.1	15.5	7.1	40.8	29.5	3.70	1.24
We set low introductory prices to win customers	0	1.4	4.2	53.5	40.8	4.34	0.63
We offer product promotions to our customers	1.4	5.6	7.1	46.5	39.4	4.17	0.89
We offer gift coupons to our customers when they refer other customers to us	1.4	4.2	2.8	38.0	53.5	4.38	0.85
We use our prices to bid competitively to win contracts	4.2	8.5	9.9	47.9	29.5	3.90	1.05
We offer products with the best features at the best price	9.9	14.	15.5	42.3	18.3	3.45	1.22

From the Table 4.6, it can be noticed that most (74.7%) of the respondents either agreed or strongly agreed with the statement that the firms set different prices for different market segments while 11.3% disagreed and 9.9% strongly disagreed to the statement. Similarly, majority (63.4%) of the respondents either agreed or strongly agreed that they offered discounts for specific products. About 32.4% however either strongly disagreed or disagreed with the statement and 4.2% were non-committal.

They set high introductory prices to attract customers as cited by majority (70.3%) of the respondents who either strongly agreed or agreed with the statement. Twenty two (22.6%) others either disagreed or strongly disagreed with the view that they set high introductory prices to attract customers. As cited by majority (94.3%) of the respondents agreed that the manufacturing firms set low introductory prices to win customers. Only 1.4% either strongly disagreed or disagreed with the statement.

As to whether the firms offer product promotions to their customers, majority (85.9%) of the respondents either strongly agreed or agreed with the statement while 7% either disagreed or strongly disagreed with the statement. Further regarding as to whether the manufacturing firms offered gift coupons to their customers when they referred other customers to them, majority (91.5%) of the respondents either agreed or strongly agreed only 5.6% of the respondents either disagreed or strongly disagreed to the statement while 2.8% were undecided. Further, a majority (77.4%) of the respondents agreed or strongly agreed that they used their prices to bid competitively to win contracts.

About 12.7% of them however disagreed or strongly disagreed that there are opportunities in the bank for employees to advance their career. It was further noted that majority (60.6%) of the respondents either agreed or strongly agreed that they offered products with the best features at the best price. However 24% were against the opinion. By and large, all the statement relating to pricing had an agreement proportion of 60.6% or above. This meant that the respondents agreed to all the statement relating to product development. The results therefore implied that pricing influenced positively on-time delivery of products in Kenya.

**4.3.4 Staff Competence and On-time Delivery of Products**

Respondents were asked to indicate the level of agreement with statements regarding staff competence. The findings were presented in Table 4.7.

**Table 4.7: Staff Competence and On-time Delivery of Products**

	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std
Our show of commitment to our employees is through training	1.4	2.8	1.4	42.3	52.1	4.41	0.61
We consider training a form of motivation	0	0	1.4	45.1	53.5	4.53	0.51
Training of our employees leads to reduction in waste and proper handling of equipment	2.8	8.5	9.9	46.5	32.4	3.97	0.52
Experience of our employees reduces the chances of errors in the production processes	4.2	5.6	9.9	46.5	33.8	4.00	0.70
Our experienced employees participate in the innovation	2.8	5.6	12.7	49.3	29.6	3.97	0.80



process of our firms products							
Our experienced employees are committed to their work	4.2	7	14.1	50.7	26.8	3.97	1.19
Our qualified employees have demonstrated better and quick learning ability	2.8	7	5.6	50.7	33.8	4.06	0.74
Our qualified employees are able to manage their time and deliver their set targets	15.5	9.9	11.3	35.2	28.2	3.50	1.05
Qualified employees have brought fresh ideas and energy to our firm	12.7	15.5	16.9	32.4	22.5	3.37	1.03

Table 4.7 revealed that those who were of the opinion that the firms show of commitment to their employees was through training formed 94.4% of the respondents against 4.2% who were against it. Only 2.8% of the respondents did not take sides. An absolute majority of the respondents (98.6%) believed that their firms considered training a form of motivation. No respondents disagreed with this statement. However, only 1.4% of the respondents were neutral to the statement.

On the question of training of employees leading to reduction in waste and proper handling of equipment, 78.9% were in agreement. Those who were in disagreement were only 11.3%. Those who took no side formed 9.9% of the respondents. Most respondents believed that experience of their employees reduced the chances of errors in the production processes. This was by 80.3% of the respondents and only 15.5% disagreed with the statement. A proportion of 78.9% of the respondents agreed with that their experienced employees participated in the innovation process of their firm's products. The disagreeing proportion was 8.4% and the neutral was 12.7%.

Those who agreed that their experienced employees were committed to their work formed 77.5% of the respondents. This was against 11.2% who disagreed and 14.1% who neither agreed nor disagreed. Most respondents indicated that their qualified employees had demonstrated better and quick learning ability as explained by 84.5% of the respondents. On the same statement, 9.6% were in disagreement while 5.6% took no side. Most respondents (63.4%) showed that their qualified employees were able to manage their time and deliver their set targets. On the same breadth, a significant 25.4% of the respondents were naysayers while 11.3% were neutral.

Finally 54.9% of the respondents believed that qualified employees had brought fresh ideas and energy to our firm. A significant number of respondents (28.2%) disagreed with the statement. Generally speaking, all the statements had a proportion of 54.9% or above meaning that the respondents agreed to all the statements relating to staff competence development. Therefore, the results implied that competent employees will positively influence on on-time delivery of products.

#### 4.3.5 On-time Delivery of Products

Respondents were asked to indicate the level of agreement with statements regarding on time delivery of products. The findings were presented in Table 4.8.

**Table 4.8: On-time Delivery of Products**

	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std
Shorter cycle time has enabled the firm deliver products before time	0	0	1.41	45.1	53.5	4.52	1.25
We begin production of goods upon order by our customers	9.9	11.3	11.3	39.4	28.2	3.65	1.07
Shorter cycle time has given us competitive advantage in the market	5.6	9.9	12.7	38	33.8	3.85	1.05
Our strong relationships with customers is as a result of our timely deliveries	2.8	7	8.5	38	43.7	4.12	0.59
Lead time has enabled us to reduce waste during the production process	2.8	5.6	5.6	47.9	38	3.91	0.62
We attribute our profits to shorter lead times	2.8	8.5	7	40.8	40.8	4.08	0.59
Shorter lead times has enabled us to meet the needs of our distribution partners	7	11.3	14.1	32.4	35.2	3.77	0.62

The findings on Table 4.8 revealed that an absolute majority (98.6%) of the respondents believed that shorter cycle time had enabled the firm deliver products before time. No respondent showed any disagreement with the statement. Respondents (67.6%) indicated that they agreed that they begun production of goods upon order by their customers. A sizeable 21.2% of the respondents disagreed with the statement. Most respondents (71.8%) believed that shorter cycle time had given them competitive advantage in the market. Those who disagreed were 15.5% of the respondents. On the question of strong relationships with customers being as a result of timely deliveries, a significant 81.7% of the respondents agreed while only 9.8% of the respondents disagreed.

Respondents believed that lead time had enabled them to reduce waste during the production process as agreed with by 85.9% of respondents against 8.4% of the respondents that disagreed. Eighty one point six percent (81.6%) of the respondents attributed their firm's profits to shorter lead times. Eleven point three percent (11.3%) of the respondents attributed the profits to other factors. Finally, 67.6% of the respondents believed that shorter lead times had enabled them to meet the needs of their distribution partners. This was against 18.7% who thought otherwise.

**4.4 Correlation Analysis**

The correlation coefficient can range from -1 to +1, with -1 indicating a perfect negative correlation, +1 indicating a perfect positive correlation, and 0 indicating no correlation at all. The Correlation matrix is used to determine the extent to which changes in the value of an attribute is associated with changes in another attribute. When the values are greater than 0.5 then the variables are correlated and when values are less than -0.5 then the values for are not correlated. This information is shown on Table 4.9.

**Table 4.9: Correlation Analysis**

		Cost Reduction	New Product Development	Pricing	Staff Competence	On-time Delivery
Pearson Correlation	Cost Reduction	1	.860**	.824**	.915**	.717**
	New Product Development	.860**	1	.797**	.792**	.724**
	Pricing	.824**	.797**	1	.785**	.545**
	Staff Competence	.915**	.792**	.785**	1	.601**
	On-time Delivery	.717**	.724**	.545**	.601**	1

\*\* Correlation is significant at the 0.05 level (2-tailed).

Table 4.9 display the results of correlation analysis between the variables. The results show that the least Pearson value was 0.545. This means that the variables are positively correlated to each other. Furthermore, they are all significant at 0.05 level. This implies that any positive change in one variable will lead to a positive change in the other variable.

**4.5 Regression Analysis**

Multivariate regression analysis was used to determine the significance of the relationship between the dependent variable and all the independent variables pooled together. This analysis was used to answer the questions; how do the independent variables influence the dependent variable collectively; to what extent does each independent variable affect the dependent variable in such a collective set-up, and which are the more significant factors?

The results are given in the model summary in Table 4.10.

**Table 4.10: Multiple Regression Analysis**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.657 <sup>a</sup>	.431	.397	1.761
a. Predictors: (Constant), cost reduction, new product development, pricing, staff competence				
b. Dependent Variable: On-time delivery of products				
Significance level (a) is 0.05				

The results in Table 4.10 show that the value obtained for R, which is the model correlation coefficient was  $r = 0.657$  which was higher than any zero order value in the table. This indicated that the model improved when more variables were incorporated when trying to evaluate on-time delivery of products. The r square value of,  $r = 0.431$ , also indicated that the multiple linear regression model could explain for 43.1% of the variations in the on-time delivery of products.

**4.6 ANOVA analysis**

ANOVA was used to test the significance of the model and therefore its suitability in reaching a conclusion on the population. The ANOVA table is presented on table 4.11

**Table 4.11: ANOVA Table**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	397.374	4	99.344	32.036	.000 <sup>b</sup>
	Residual	207.784	67	3.101		
	Total	605.158	71			

a. Dependent Variable: On-time delivery of products
b. Predictors: (Constant), cost reduction, new product development, pricing, staff competence

As per Table 4.11, the F calculated value of 32.036 meant that the overall model was significant and could therefore, be used to reach conclusions on the population parameters. This was supported by the  $\rho$ -value (0.000) being lower than the significance level (0.05).

**Table 4.12: Multiple Linear Regression Analysis**

Model		Unstandardized Coefficients		Beta	Standardized Coefficients	t	Sig.
		B	Std. Error				
1	(Constant)	23.234	3.327			6.938	.000
	Cost Reduction	.310	.058	.371		0.534	.012
	New Product Development	.174	.061	.184		0.852	.026
	Pricing	.163	.047	.163		3.468	.042
	Staff Competence	.478	.081	.498		5.901	.011
a. Dependent Variable: On-time delivery of products							

The researcher conducted a multiple regression analysis so as to determine the relationship between value management approaches and on-time delivery of products in Kenya. As per the SPSS generated table, the equation ( $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$ ) becomes:

$$Y = 23.234 + 0.310X_1 + 0.174X_2 + 0.163X_3 + 0.478X_4$$

Where Y is the dependent variable (on-time delivery of products),  $X_1$  is the cost reduction variable,  $X_2$  is product development variable,  $X_3$  is pricing variable and  $X_4$  is staff competence and development variable. The data findings analysed also showed that taking all other independent variables at zero, a unit increase in cost reduction will lead to a 0.310 increase in on-time delivery of products; a unit increase in product development will lead to a 0.174 increase in on-time delivery of products, a unit increase in pricing will lead to a 0.163 increase in on-time delivery of products and a unit increase in staff competence will lead to a 0.478 increase in on-time delivery of products.

At 5% level of significance and 95% level of confidence, staff competence and development had a 0.011 level of significance, cost reduction showed a 0.012 level of significance, new product development showed a 0.026 level of significance, and pricing showed a 0.042 level of significance hence the most significant factor was staff competence.

#### 4.6 Hypothesis Testing

##### Hypothesis I

The hypothesis stated that:

$H_{01}$ : Cost Reduction has no Significant Influence on On-time Delivery of Products in manufacturing firms in Nakuru

The hypothesis was tested by determining the relationship between cost reduction and on-time delivery of products using multiple regressions in table 4.11. The test was done at a significant level 0.05. The test result on table 4.11 indicate that there was a statistical significant positive relationship between cost reduction and on-time delivery ( $\beta = 0.310, \rho < 0.05$ ). We, therefore, reject the null hypothesis and conclude that cost reduction has a significant influence on on-time delivery of products. This finding is consistent with the finding of Richard (2009) who found out that cost reduction approaches had a significant influence on on-time delivery. Richard (2009) points out that cutting supply chain cost, inventory cost and logistics costs leads to an organization achieving its core values and objectives on time delivery. The findings are also consistent with those of Ramakrishna (2005) who found that firms that invest considerably and plan well in order to control and minimize wastage have better performance and profitability. Manufacturing firms should therefore ensure that Inventory management and planning, location of the firm and transportation of finished goods is done in the most cost effective manner. This will lead to a reduction in the cost hence leading to an improvement in on-time delivery of products.

##### Hypothesis II

$H_{02}$ : New Product Development has no Significant Influence on On-time Delivery of Products in manufacturing firms in Nakuru

The hypothesis was tested by determining the relationship between new product development and on-time delivery of products using multiple regressions in table 4.11. The test was done at a significant level 0.05. The test result on table 4.11 indicate that there was a statistical significant positive relationship between new

product development and on-time delivery ( $\beta = 0.174, \rho < 0.05$ ). We, therefore, reject the null hypothesis and conclude that new product development has a significant influence on on-time delivery of products. This finding converges those of Aitken (2003), Lyson (2007) and Okello and Were(2014) that a significant positive relationship exists between new product development and on-time delivery of product. This means that if manufacturing firms give consideration to technology, new product development and improvement of existing products, it will lead to an improvement in on-time delivery of products

### **Hypothesis III**

H<sub>03</sub>: Pricing has no Significant Influence on On-time Delivery of Products manufacturing firms in Nakuru

The hypothesis was tested by determining the relationship between pricing and on-time delivery of products using multiple regressions in table 4.11. The test was done at a significant level 0.05. The test result on table 4.11 indicate that there was a statistical significant positive relationship between pricing and on-time delivery ( $\beta = 0.163, \rho < 0.05$ ). We, therefore, reject the null hypothesis and conclude that pricing has a significant influence on on-time delivery of products. This finding is consistent with that of Theodosiou(2000) as well that of Neelan and Mike(2016) who out existence of a significant relationship between pricing and on-time delivery of products in South Africa. This implies that a firm should not set its price too high or too low. Manufacturing firms that pay attention to competitors pricing and consider skimming and penetration end up with a good pricing mechanism for its products. An improvement in the pricing of a firm's products leads to an improvement in on-time delivery of products.

### **Hypothesis IV**

H<sub>04</sub>: Staff Competence has no Significant Influence on On-time Delivery of Products manufacturing firms in Nakuru

The hypothesis was tested by determining the relationship between staff competence and on-time delivery of products using multiple regressions in table 4.11. The test was done at a significant level 0.05. The test result on table 4.11 indicate that there was a statistical significant positive relationship between staff competence development and on-time delivery ( $\beta = 0.478, \rho < 0.05$ ). We, therefore, reject the null hypothesis and conclude that staff competence has a significant influence on on-time delivery of products. The findings agree with that of Aaker, Fournier and Brasel(2002). The finding is also in agreement with those of Zhenget al(2009)who found a significant relationship between employee training and performance of tasks assigned, and success and growth of organizations being dependent on employee training. This implies that the more competent the staffs of a firm are, the better the performance in terms of on-time delivery of products. It is, therefore, important for manufacturing firms to employ staff with the right qualifications and experience and have regular training for the staff.

## **V. Summary, Conclusions and Recommendations**

### **5.1 Introduction**

This chapter presents the summary of major findings of the study, conclusions, necessary recommendations and areas for further studies. The summary is done in line with the research questions and objectives of the study based on the output of the descriptive and inferential statistical analyses guided to test the research hypothesis of the study. Each recommendation traces directly to each conclusion.

### **5.2 Summary of the Study Findings**

The general objective of the study was to analyse the influence of value management approaches on on-time delivery of products in Kenya.

The first objective was to determine the influence of cost reduction on on-time delivery of products in Kenya. All the indicators in the variable scored a proportion of 62% or above. This implied that the respondents agreed with most of the statements thus affecting positively on-time delivery of products in Kenya. The second objective was to determine the influence of product development on on-time delivery of products in Kenya. All the statement relating to product development had an agreement proportion of 66.2% or above. This meant that the respondents agreed to all the statement relating to product development. The results therefore implied that product development influenced positively on-time delivery of products in Kenya.

The third objective was to assess the influence of pricing on on-time delivery of products in Kenya. All the statement relating to product development had an agreement proportion of 60.6% or above, meaning that the respondents agreed to all the statement on pricing. The final objective was to assess the impact of staff competence on on-time delivery of products in Kenya. All the statements had a proportion of 54.9% or above meaning that the respondents agreed to all the statements relating to staff competence development. Therefore, the results implied that competent employees will positively influence on on-time delivery of products.

### **5.3 Conclusions of the Study**

on the study findings, the study concluded that value management approaches influences on time delivery of products. Value management approaches have a significant influence on on time delivery of products in Kenya. The sub-constructs of value management approaches that is cost reduction, new product development, pricing and staff competence. The findings of the study showed that cost reduction had a significant influence on on-time delivery of products. Manufacturing firms should, therefore, take into account practices that help in cost reduction. The study also revealed that new product development was important to manufacturing firms as it positively influenced on-time delivery of products. This makes it important for manufacturing firms to have good new product development practices.

The study established that there existed a direct relationship between pricing and on-time delivery. This led to the conclusion that pricing influences on-time delivery of products. The results showed that staff competence had a direct and significant influence on on-time delivery of products. The study concluded that firms with better staff competence practises do better as far as on-time delivery of products is concerned. It is, therefore important that manufacturing firms pay attention to staff competence.

### **5.4 Recommendations of the Study**

The study made recommendations in line with the objectives, findings and conclusions of the study. Manufacturing firms should use systems and operations methods that help in cost reduction. Planning and inventory management, location of the firm and transportation of manufactured goods are areas that should be given utmost attention by top managers in the supply chain. Apart from helping in on-time delivery of products, it will help save on money that can be used in other firm activities. Manufacturing keeps evolving thanks to use of technology. New features and consumer behaviour has become dynamic. Therefore the manufacturing firms should embrace new product development as a value management approach but stick to originality and good quality of their products. Shorter cycle times will lead to improvement in on-time delivery of products.

They should adopt pricing strategies that help in on time delivery of products. An understanding of pricing strategies will help the firms to deliver on time and even improve its sale figures and numbers. The prices set by the manufacturing firms should be able to capture the target markets effectively and competitive enough not to make loses. If manufacturing firms have higher sales the more the revenue and taxes remitted to the government for the goods sold.

Finally the study recommends that manufacturing firms should have competent employees and have measures put in place to see their development. This will motivate staff to work harder in achieving their tasks. Various methods of training can be used so as to keep production process ongoing. Also qualified employees should be hired to ensure the right skills are obtained and fresh ideas and experiences brought forth as contribution to the manufacturing firms.

### **5.5 Areas for Further Research**

This study considered how the four variables (cost reduction, new product development, pricing and staff competence development) affect on-time delivery of products. Future studies may be done on the same dependent variable but now considering other variables not looked at in this study. The study was conducted in manufacturing firms in Nakuru representing Nakuru County. Hence this study recommends that other researchers can carry out this study in other counties and establish whether the findings can be generalized.

This study did not use control variables. The study may be replicated by other researchers but introduce these variables like the size of the manufacturing firms and establish whether the findings can be generalized.

### **Acknowledgement**

My gratitude goes to my supervisor Mr. George Kimiti for consistently and patiently guiding me throughout this research process. His constructive criticism, advice and support during the entire process is highly commendable. It has helped me expand my knowledge in my field of study. I would like to thank the University for giving me the opportunity to pursue my course at the institution and my colleagues who in one way or another contributed to the completion of my studies. Sincere thanks to the Gichuki clan for your great support during the entire time of study. May the Almighty God bless you all abundantly

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## Appendices

### APPENDIX I: INTRODUCTORY LETTER

Sylvia Wanjiku Gichuki,

P.OBOX 220-20107 NJORO.

Email address: [gichukicyku@gmail.com](mailto:gichukicyku@gmail.com)

Tel No: 0728-372542

Dear Respondent,

**RE: REQUEST FOR RESEARCH INFORMATION**

I am a student from Jomo Kenyatta University of Agriculture and Technology (JKUAT). I am carrying out a final year research report for the Masters in Science Procurement and Contract Management. My research topic is influence of value management approaches on on-time delivery of products in Kenya. A survey of manufacturing firms in Nakuru. Your support in providing any useful information will be highly appreciated. The information provided will be dealt with strict confidentiality and not used or made viable for any other purpose other than this that is being researched for.

Thank you in advance.

Yours sincerely,

Sylvia.

**Appendix II: Questionnaire**

**SECTION A**

Please provide the following information regarding your organization.

Tick where applicable

1. Number of years working in the establishment

- more than 5 years
- 5 years
- 2 years
- less than 1 year

2. Level of education

- University education
- College education
- Secondary education

**SECTION B: COST REDUCTION (Use ticks where appropriate)**

This section is designed to collect information that deals with cost reduction as a value management approach. Please indicate your answer by ticking in the spaces provided, by the scale indicator

**5 = strongly agree 4 = agree 3 = neutral 2 = disagree 1 = strongly disagree**

		5	4	3	2	1
1.	We purchase our raw materials in bulk to reduce on costs					
2.	We utilize the warehouse space in order to lower holding costs					
3.	By planning we are able to control costs incurred during production of our goods					
4.	We consolidate our goods during transportation in order to reduce costs.					
5.	By transporting large orders we are able to reduce costs					
6.	We use delivery schedules to dispatch our products as it reduces costs and idleness of company trucks					
7.	Our goods are stored at appropriate distribution points close to customers in the supply chain					
8.	Location of our firm near our sources reduces procurement costs					
9.	Single location of our produced goods enables the firm reduce the costs of maintaining several holding outlets					

**SECTION C: NEW PRODUCT DEVELOPMENT (Use ticks where appropriate)**

This section is designed to collect information that deals with new product development as a value management approach. Please indicate your answer by ticking in the spaces provided, by the scale indicator

**5 = strongly agree 4 = agree 3 = neutral 2 = disagree 1 = strongly disagree**

		5	4	3	2	1
1.	Our customers are empowered in the product development process through technology					
2.	Innovation of new products in the firm has been made effective by use of technology					
3.	Technology has enabled our firm to create and re engineer the product development process					
4.	Changing consumer behavior creates opportunities for new product development					
5.	Introduction of new products in the market keep us competitive in the industry					
6.	Constant improvement of quality in our products has reduced the level of					



alteration when a new product is introduced						
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**SECTION D: PRICING** (Use ticks where appropriate)

This section is designed to collect information that deals with pricing as a value management approach. Please indicate your answer by ticking in the spaces provided, by the scale indicator

**5 = strongly agree 4 = agree 3 = neutral 2 = disagree 1 = strongly disagree**

		5	4	3	2	1
1.	We set different prices for different market segments					
2.	We offer discounts for specific products					
3.	We set high introductory prices to attract customers					
4.	We set low introductory prices for our to win customers					
5.	We offer product promotions to our customers					
6.	We offer gift coupons to our customers when they refer other customers to us					
7.	We use our prices to bid competitively to win contracts					
8.	We offer products with the best features at the best price					

**SECTION E: STAFF COMPETENCE** (Use ticks where appropriate)

This section is designed to collect information that deals with pricing as a value management approach. Please tick your answer by ticking in the spaces provided, by the scale indicator

**5 = strongly agree 4 = agree 3 = neutral 2 = disagree 1 = strongly disagree**

		5	4	3	2	1
1.	Our show of commitment to our employees is through training					
2.	We consider training a form of motivation					
3.	Training of our employees leads to reduction in waste and proper handling of equipment					
4.	Experience of our employees reduces the chances of errors in the production processes					
5.	Our experienced employees participate in the innovation process of our firms products					
6.	Our experienced employees are committed to their work					
7.	Our qualified employees have demonstrated better and quick learning ability					
8.	Our qualified employees are able to manage their time and deliver their set targets					
9.	Qualified employees have brought fresh ideas and energy to our firm					

**SECTION F: ON TIME DELIVERY OF PRODUCTS**

This section is designed to collect information on on time delivery of products. Please indicate your answer by ticking in the spaces provided, by the scale indicator

**5 = strongly agree 4 = agree 3 = neutral 2 = disagree 1 = strongly disagree**

		5	4	3	2	1
1.	Shorter cycle time has enabled the firm deliver products before time					
2.	We begin production of goods upon order by our customers					
3.	Shorter cycle time has given us competitive advantage in the market					
4.	Our strong relationships with customers is as a result of our timely deliveries					
5.	Lead time has enabled us to reduce waste during the production process					
6.	We attribute our profits to shorter lead times					
7.	Shorter lead times has enabled us to meet the needs of our distribution partners					

Thank you for your valuable time and consideration.

**APPENDIX III: LIST OF MANUFACTURING FIRMS IN NAKURU**

**Source: Kenya Association of Manufacturers 2017**

1. Crown Beverages
2. Fontana Limited
3. Happy Cow Ltd
4. Menengai Oil Refineries Ltd
5. Njoro Canning Factoring (Kenya) Ltd
6. Valley Confectionery Ltd
7. Spin Knit Limited
8. Shayona Limited

9. Sierra Flora
10. Pyrethrum Board of Kenya
11. Nakuru Plastics
12. Kapi Ltd
13. Gone Finishing
14. Comply Industries Ltd
15. Bedi Investments Ltd

IOSR Journal of Business and Management (IOSR-JBM) is UGC approved Journal with Sl. No. 4481, Journal no. 46879.

Sylvia Wanjikugichuki "Influence of Value Management Approaches On On-Time Delivery of Products in Kenya a Survey of Manufacturing Firms in Nauru." IOSR Journal of Business and Management (IOSR-JBM) 20.3 (2018): 38-63.